



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/089,326	12/09/2002	Jori Arrakoski	NOKI14-00025	1361
43829	7590	10/10/2006	EXAMINER	
ROBERT M BAUER, ESQ. LACKENBACH SIEGEL, LLP 1 CHASE ROAD SCARSDALE, NY 10583			SHUE, JUH YIH	
			ART UNIT	PAPER NUMBER
			2616	

DATE MAILED: 10/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/089,326

Applicant(s)

ARRAKOSKI ET AL.

Examiner

Juh-Yih Shue

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 December 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 36-70 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 36-70 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) ✓
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08) ✓
Paper No(s)/Mail Date 8/6/02.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities:
2. In page 10, line 1, "On average there are 2.73 hops....", the 2.73 is not same as the calculation result on line 3 that shows 2.72.
3. There is no abstract in this application. Abstract should begin on a new page and should not be included on a sheet including any other part of application (37CFR 1.71(f)).

Appropriate correction is required.

Claim Objections

4. Claim 63 is objected to because of the following informalities:
5. Claim 63 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

As to claim 63, applicant recites " A communications system as claimed in claim 62 as dependent directly or indirectly on claim 24, ..." is improper because there is no claim 24. Applicant filed preliminary amendment on 12/09/2002 has canceled claim 24.

For purpose of prosecution, examiner still considers claim 63 depends on claim 62.

Art Unit: 2616

Appropriate correction is required.

6. As to claims 36-70, examiner noticed that applicant used the term "capable of" through the claims. Applicant is reminded that such term is considered as language that only suggests or makes optional, but does not require steps to be performed or does not limit a claim to a particular structure. Thus, it does not limit the scope of a claim or claim limitation. It is suggested the term "capable of" not be used in the claims.

The same suggestion as above for the term "may" used in the claims.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claim 36 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

9. Claim 36 is unclear because "... another second network unit..." in page 2, line 1 and 3 does not clearly point out what unit in the second network.

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

11. Claims 36, 52, 53 and 70 are rejected under 35 U.S.C. 102(b) as being unpatentable by Samadi et al. (U.S. Patent No. 5,664,007), hereinafter "Samadi".

As to claims 36, 52-54 and 70, Samadi teaches a communications system and method comprising (Fig. 2B):

a first network (Network A) comprising a plurality of first network subscriber units or communication terminals (Fig. 2B phone 221 and laptop computer 228) and a first network sink node unit (Switch) capable of wireless communication with the first network subscriber units (Col. 4, Lines 45-55);

a second network (Network B) geographically at least partly overlapping the first network (Col. 2, Lines 51-56), comprising a plurality of second network subscriber units (Col. 3, Lines 2-5);

a second network sink node unit (Switch) capable of wireless communication with the second network subscriber units (such switch 203 and 205 is able to talk to cellular phone 221 wirelessly, See Fig 2A and Fig. 2B), and

a dedicated connection between the first network sink node unit and a second network unit capable of communication in the second network, whereby a first network subscriber unit may be provided with a communication path to another second network unit (Fig. 2B , dash-line 251, 256 and solid line 261, 262, 233 between two switches and communication units 221 and 225 in the two network, Col. 5, Lines 22-25).

As to claims 37 and 55, Samadi discloses the communications system as claimed in claims 36 and 54 respectively, wherein wireless communication in the first network is independent of wireless communication in the second network (Col. 4, Lines 62-63).

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2616

13. Claims 38-51 and 56-69 are rejected under 35 U.S.C. 103(a) as being unpatentable over Samadi et al. (U.S. Patent No. 5,664,007), hereinafter "Samadi", in view of Muller et al. (U.S. Patent 6,185,413 B1)), hereinafter "Mueller".

Samadi teaches all the limitations of claim 37(see above), which claim 38 depends.

As to claims 38 and 56, Samadi does not explicitly teach the first network is in a different frequency band from wireless communication in the second network.

Mueller teaches several different communication networks can have different frequency band (Fig. 3a, Col. Lines). In Fig. 2, GSM, DCS1800 and DECT use three different frequency bands.

It would have been obvious to a person of the ordinary skill in the art at the time the invention was made to combine a plurality of different frequency bands as Muller taught within a plurality of overlapping wireless communication networks taught by Samadi to obtain the invention as specified in claim 38.

The motivation for doing so would have been to provide a selection of a large number of different mobile radio network systems and appropriate providers

Art Unit: 2616

depending on the range of the individual mobile radio networks (Col. 3, Lines 59-63).

As to claims 39 and 57, Samadi modified by Muller, discloses the first network comprises a plurality of first network sink node units (Switches) with that the first network subscriber units or communication terminals are capable of wireless communication (Col. 4, Lines 56-58).

As to claims 40 and 58, Samadi modified by Muller, discloses implicitly a plurality of a dedicated connections, each dedicated connection being between are respective first network sink node unit and a respective second network unit whereby a first network subscriber unit or communication terminals maybe provided with a communication path to another second network unit (Fig. 2 A/B, Col. 4, Line 56-61 and dash-line 251, 256 and solid line 261, 262, 233 between two switches and communication units 221 and 225 in the two network, Col. 5, Lines 22-25).

As to claims 41 and 59, Samadi modified by Muller, discloses the communications system comprising:

a third network geographically overlapping the second network (Mueller, Fig. 3A, Col. 3, Lines 64-67) and comprising a plurality of third network subscriber units or communication terminals and a third network sink node unit capable of wireless

communication with the primary third network unit (Samadi, Fig. 4, Col. 10, Lines 37-41);

and a dedicated connection between a second network sink node unit and a third network unit capable of communication in the third network, whereby a second network subscriber unit or communication terminal may be provided with a communication path to another third network unit (Samadi, Fig. 4B, switches (sink nodes) 410-412, devices 321 and 325 (subscribers) communicate to each other through connection 472 and 480).

As to claims 42 and 60, Samadi modified by Muller, teaches the communications system wherein wireless communication in the first network and in the second network is independent of wireless communication in the third network (Samadi, Col. 4, Lines 62-63).

As to claims 43 and 61, Samadi modified by Muller, teaches the communications system wherein wireless communication in the first network and in the second network is in a different frequency band from wireless communication in the third network (same reason of rejection of claim 38).

As to claims 44 and 62, Samadi modified by Muller, teaches the communications system wherein the second network comprises a plurality of second network sink node units with which the second network subscriber units or

Art Unit: 2616

communication terminals are capable of wireless communication (Samadi, Fig. 1, Col. 3, Lines 10-15).

As to claims 45 and 63, Samadi modified by Muller, teaches the communications system comprising a plurality of a dedicated connections, each dedicated connection being between a respective second network sink node unit and a respective third network unit whereby a second network subscriber unit may be provided with a communication path to another third network unit (Samadi, Fig. 4B, switches (sink nodes) 410-412, devices 321 and 325 (subscribers) communicate to each other through connection 472 and 480, the dedicated connections 480, 481 and 445 between three switches 411, 410 and 412).

As to claims 46 and 64, Samadi modified by Muller, teaches the communications system wherein the said communication path is data communication (Samadi, Col. 10, Lines 56-57).

As to claims 47-48 and 65-66, Samadi modified by Muller, teaches the said communication path is packet data communication and use an inter-net protocol (Samadi, Col. 4 Lines 64-67, since the network can be ATM or packet switching technologies, it is inherently that using inter-net protocol to transmit packet data between networks).

Art Unit: 2616

As to claims 49-51 and 67-69, Samadi modified by Muller, the communications system wherein the said communication path in the first, the second and the third network is radio communication (Since all networks are wireless networks (Col. 4, Lines 47-50), it is inherently using radio communication between units within a wireless network).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Juh-Yih Shue whose telephone number is 571 270 1141. The examiner can normally be reached on Mon.-Fri./07:30-17:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on 571 272 3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like

Application/Control Number: 10/089,326

Page 11

Art Unit: 2616

assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



RICKY Q. NGO
SUPERVISORY PATENT EXAMINER

JYS/
9/19/2006

Ricky Ngo
Supervisory
Patent Examiner